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REMARKS

In the Office Action dated March 11, 2003, the Examiner disapproves the proposed drawing correction to Fig. 1. The Examiner objects to claims 14, 23 and 24. The Examiner rejects claims 1, 4-9, 12-22, 25-31 and 33 under 35 U.S.C. § 112, second paragraph. The Examiner rejects claims 23, 24 and 32-36 are rejected under 35 U.S.C. § 112, first paragraph. The Examiner rejects claims 1, 4, 7-9, 12-14, 16, 17 and 29 under 35 U.S.C. § 102(b). Finally, the Examiner rejects claims 6, 25 and 28 under 35 U.S.C. § 103(a). With this Amendment, claims 1, 9, 14, 22-24 and 33 have been amended. After entry of this Amendment, claims 1, 4-9 and 12-36 are pending in the Application. It is respectfully submitted that the invention as defined by the claims is not anticipated or rendered obvious by the cited references taken singly or in any permissible combination for the reasons as set forth in more detail hereinafter. Reconsideration of the Application as amended is respectfully requested.

Since it is not necessary to show the voltage source in the drawing figures, the Applicants are not resubmitting a drawing change to include the voltage source. As a result, the Applicants have removed the reference to the voltage source in Fig. 1 in the specification. It is respectfully submitted that this change to the specification does not add new matter to the application. The Examiner's approval of the change to the specification is respectfully requested.

The Examiner objects to claims 1, 23 and 24. The Examiner's proposed change to each claim has been adopted.

The Examiner rejects claims 1, 4-9 and 12-24 under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that the Applicants regard as the invention. In claim 1 the Examiner states that "the substrate surfaces" in line 6 of the claim lacks sufficient antecedent basis. It is respectfully submitted that the Examiner previously accepted the use of "the substrate surfaces" in claim 1 at line 7 prior to the inclusion of "the substrate surfaces" in line 6 of the claim as amended. To address the Examiner's concern, however, the Applicants have amended claim 1 in two places to refer to "the surfaces to be treated" in place of "the substrate surfaces." It is respectfully submitted that this clarification requires no new consideration or search by the Examiner.

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In claim 14 the Examiner states that it is unclear whether the anode is operable to receive an activating voltage or the substrate is operable to receive an activating voltage. Claim 14 has been amended to clarify that it is the anode that is operable to receive the activating voltage. With respect to the Examiner's suggestion that the specification does not appear to shed light on this issue, the Examiner's attention is directed to the second full paragraph on page 3, the last full paragraph on page 4 and the first full paragraph on page 6. The substrate serves as the cathode, which would not receive an activating voltage. It is respectfully submitted that this clarification requires no new consideration or search by the Examiner.

In claim 22, the Examiner states that it is unclear as to what "their potentials" refers to in the claim. The Examiner also states that it is unclear as to what "near" means in the context of the claim. Claim 22 has been amended to more clearly state the elements therein. The claim now states that deflection elements are arranged at least one of in a region of a device component in which parasitic discharges could be formed due to potentials of the device component and around the at least one substrate and the discharge region. The deflection elements are electrically isolated from the device component and the at least one substrate. Thus, the Applicants have clarified that the potentials are those experienced by the device component. In addition, stating that the deflection elements are in a region of a device component or around the at least one substrate and the discharge region addresses the Examiner's concern with the term "near." The position of the deflection elements in the regions of device components, or around the substrate and the discharge region was in claim 22 before its amendment in the response to the last Office Action. Therefore, this change requires no new search or consideration.

The Examiner correctly interpreted the dependency of claim 33. The Applicants have corrected the dependency of the claim to claim 32. Since the Examiner correctly interpreted this claim in the Office Action, it is respectfully submitted that this change requires no new search or consideration by the Examiner.

Based upon the changes described above, it is respectfully submitted that claims 1, 14, 22 and 33 and their dependent claims are clear and definite and meet the requirements of 35 U.S.C. § 112, second paragraph.

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The Examiner rejects claim 23, 24 and 32-36 under 35 U.S.C. § 112, first paragraph, as containing subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention. In claim 23, the Examiner states that the means for activating the hollow-cathode glow discharge is not specified as being within or outside the discharge region in the specification. Similarly, in claim 24, the Examiner states that the means for supplying electrical energy is not specified as being within or outside the discharge region in the specification. The Applicants have removed these respective features from claims 23 and 24. Therefore, this rejection is moot.

Although the Examiner did not indicate the presence of allowable subject matter in each of claims 5, 15, 18-24, 27 and 30-36, it is respectfully noted that none of these claims were rejected based upon cited prior art. Since the rejections under 35 U.S.C. § 112 have been overcome by the present Amendment, it is respectfully submitted that each of these claims is allowable.

The Examiner rejects claims 1, 4, 7-9, 12-14, 16, 17, 26 and 29 under 35 U.S.C. § 102(b) as being anticipated by Yamada (JP 63-026373 A) and rejects claims 6, 25 and 28 under 35 U.S.C. § 103(a) as being unpatentable over Yamada. However, the Examiner has relied upon personal knowledge, and has not provided any translation to which the Applicants can refer. The Applicants have obtained a verified translation of Yamada and enclose it herewith as Exhibit 1. To the extent that the Examiner disagrees with any portion of the translation of Yamada, it is respectfully requested that the Examiner provide an affidavit pursuant to 37 C.F.R. 1.104(d)(2) to support the personal knowledge of an employee of the Office of the English translation of the portions of the Japanese publication relied upon. With respect to claim 1, the personal knowledge of the translator used to reject the claim is the translation and function of reference number 6 and reference number 2. With respect to claims 6, 7, 9, 25 and 28, the personal knowledge is the English translation of page 422, section 4. With respect to claims 13 and 17, the personal knowledge is the English translation of page 422, section 3 and the translation of element 2 in Figure 1.

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It is respectfully submitted that Yamada fails to teach or suggest all of the features of claim 1 and its dependent claims 4, 6-9, 12, 13, 25 and 26. The Examiner's rejection implies that the tube performs the step of restricting the discharge region on at least two opposite sides by surfaces to be treated. It is clear from the working example of Yamada, however, that the discharge region is only restricted by the vacuum vessel 1 because both the inside and the outside of the tube 7 are uniformly coated by the discharge. See Ex. 1, p. 4. The vacuum vessel 1 is not a substrate surface that is treated. Since the inside and outside of the tube 7 are both coated, Yamada fails to teach or suggest the step of claim 1 of restricting the discharge region on at least two opposite sides by surfaces to be treated. For the foregoing reasons, claim 1 and its dependent claims are allowable over the prior art of record.

In addition to the reasons set forth with respect to claim 1, it is respectfully submitted that claim 4 is allowable over Yamada. The Examiner states that a tube is nothing more than a band that has been given a desired shape and curvature, so the Examiner has broadly but reasonably interpreted the tube of Yamada to be "band-shaped." It is respectfully submitted that the Examiner has ignored the meaning of a "band-shaped substrate" as known by those of skill in the art and as described and shown in the specification. A band-shaped substrate is known by those of skill in the art as a substrate that can be wound onto and unwound from spools and is in the form of a continuous sheet. See also Applicants' specification at p. 3, first full para., p. 4, sixth full para., p. 4, last para. ending at the top of p. 5. In no way would one of skill in the art consider a solid tube to be a band-shaped substrate. For the foregoing reasons, claim 4 is allowable over the prior art of record.

Claim 8 is also allowable over the prior art of record. The Examiner states that the at least one substrate is grounded because it is connected to element 6, which the Examiner states is a voltage source connected to ground. It is respectfully submitted that the specification uses grounded in its most common sense to those of skill in the art. That is, the substrate forms the cathode. The anode is at a higher potential. When the cathode is grounded, it is at ground potential; the anode is at a positive potential with respect to ground. See Applicants' specification at p. 3, second full para., p. 4, last full para. Figure 1 of Yamada does not show that the tube 7 is grounded, i.e., at ground potential. Instead, the vessel 1 is connected to a ground. If

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the tube 7 were grounded, no reaction could take place in Yamada. For the reasons set forth herein, and from dependency from claim 1, the invention of claim 8 is patentable over Yamada.

Claim 9 has been amended to state that a magnitude of a voltage between the at least one substrate and a plasma formed by said electric discharge is between one and 3000 volts. The typographical error that the voltage is a voltage applied has been removed because a voltage is clearly not applied between the substrate and the plasma. The hollow-cathode glow electric discharge is, as described in claim 1, activated by a voltage. A voltage is then formed between the substrate and the plasma by the discharge, as correctly described by the remainder of the claim. See also Applicants' specification at p. 4, last full para. Since the feature remains unchanged that a magnitude of a voltage between the at least one substrate and a plasma formed by the electric discharge is between one and 3000 volts, this change requires no new search or consideration. It is respectfully submitted that Yamada does not render the invention of claim 9 unpatentable because the Examiner has failed to cite any teaching or suggestion in Yamada that the voltage between the tube 7 and plasma formed by the electric discharge is between one and 3000 volts and, indeed, Yamada fails to teach or suggest this feature. Therefore, claim 9 is allowable over the prior art of record both by dependency from claim 1 and for the reasons set forth above.

Further, it is respectfully submitted that Yamada fails to teach or suggest all of the features of claim 14 and its dependent claims 16, 17, 28 and 29. It is respectfully submitted that Yamada fails to teach or suggest the feature of claim 14 of an anode placed proximate to the at least one substrate. The Examiner states that the vacuum chamber acts as the anode, referring to Fig. 1. However, it is respectfully submitted that, in claim 14, the anode is a separate element from the vacuum chamber. Yamada fails to teach or suggest an anode separate from the vacuum chamber 1. Yamada coats both the inside and the outside of the tube 7. Ex. 1, p. 4. Thus, the use of the vacuum chamber 1 as a second electrode is needed in Yamada. For the foregoing reasons, the invention of claim 14 and its dependent claims is neither taught nor suggested by the prior art of record.

It is respectfully submitted that the present amendment should be entered in the application under Rule 37 C.F.R. §1.116. The amendments do not raise new issues that would require further search or consideration and do not raise issues of new matter. Each of the features

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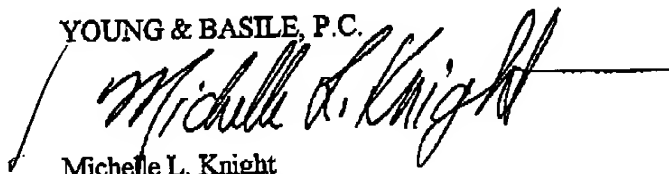
claimed has already been considered and searched by the Examiner. The Amendment also places the application in better form for appeal by removing the rejections under 35 U.S.C. § 112, first and second paragraphs, from claims 1, 14, 22-24 and 33 and by removing the objections to claims 14, 23 and 24. Removing these rejections also removes the only bases for rejecting each of claims 5, 15, 18-24, 27 and 30-36. It is further submitted that the proposed amendments to the claims were not earlier entered because this is the first Office Action in which these claims were considered in their present form. The Amendment also does not add new claims for search and consideration by the Examiner.

It is respectfully submitted that this Amendment traverses and overcomes all of the Examiner's objections and rejections to the application as originally filed. It is further submitted that this Amendment has antecedent basis in the application as originally filed, including the specification, claims and drawings, and that this Amendment does not add any new subject matter to the application. Reconsideration of the application as amended is requested. It is respectfully submitted that this Amendment places the application in suitable condition for allowance; notice of which is requested.

If the Examiner feels that prosecution of the present application can be expedited by way of an Examiner's amendment, the Examiner is invited to contact the Applicants' attorney at the telephone number listed below.

Respectfully submitted,

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